

REMARKS

In the present Amendment, Claims 32-37 and 48 are canceled without prejudice or disclaimer.

Claim 38 is amended to incorporate the subject matter of Claim 39, which depends from Claim 38. Accordingly, Claim 39 is canceled.

Claim 49 is amended to incorporate the subject matter of Claim 50, which depends from Claim 49. Accordingly, Claim 50 is canceled.

Claim 46 is amended to correct a typographical error.

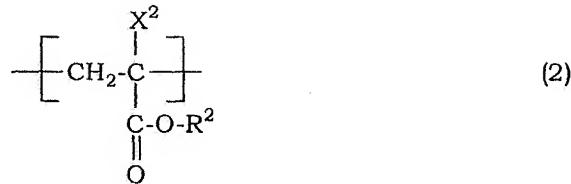
Support for Claims 54 and 55 is found, for example, on page 9, lines 16-24 of the originally filed specification.

No new matter is added. After entry of the Amendment, Claims 38, 40-47, 49 and 51-55 will be pending.

In paragraph 4 at pages 3-4 of the Office Action, claims 32-53 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 5,149,753 (“Inukai”).

Applicants traverse and respectfully request the Examiner to reconsider in view of the amendment to the claims and the following remarks.

Amended Claim 38 recites a fluorine-containing optical material that is limited to a terpolymer of the structural unit (a) of the formula (1), the structural unit (b) of the methyl methacrylate (MMA) and the structural unit (c1) represented by the formula (2):



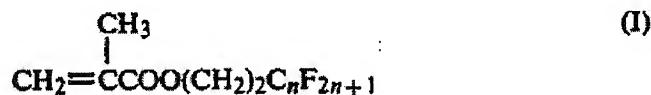
wherein X² is H, CH₃, F, CF₃ or Cl; R² is H or a fluoralkyl group having 4 to 6 carbon atoms.

Similarly, amended Claim 49 recites a fluorine-containing optical material that is limited to a structural unit (a) of the formula (1), the structural unit (b) of MMA and the structural unit (c2) represented by the formula (2a):



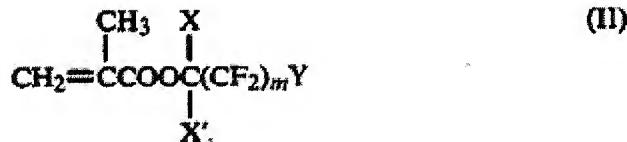
wherein X³ is H, CH₃, F, CF₃ or Cl; R³ is a fluoralkyl group having 4 to 6 carbon atoms.

Inukai discloses a terpolymer comprising (a) about 50 to 95% by weight of fluoroalkyl methacrylate of the Formula (I):

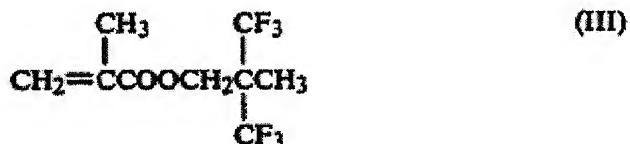


wherein n is an integer of 6 to 10,

- (b) about 5 to 50% by weight of MMA, and
- (c) 0 to about 40% by weight of at least one fluoroalkyl methacrylate of the Formula (II):



wherein X and X' each independently represent a hydrogen atom, methyl group or ethyl group, Y is a hydrogen atom or fluorine atom and m is an integer of 4 to 10, and fluoroalkyl methacrylate of the Formula (III):



The fluoroalkyl methacrylate of the Formula (II) of Inukai is within the scope of the structural units (c1) and (c2) of the present claims when X=X'=H and m=4.

The fluoroalkyl methacrylate (III) of Inukai corresponds to the structural unit (a) according to the present claims, and the fluoroalkyl methacrylate (II) of Inukai corresponds to the structural unit (c1) or (c2). Further, Inukai essentially contains the fluoroalkyl methacrylate (I).

The closest polymer of Inukai to the present claims is the quadripolymer of Inukai (that is, four-component polymer) of the fluoroalkyl methacrylate (I), MMA, the fluoroalkyl methacrylate (II) and the fluoroalkyl methacrylate (III).

As is clear from Formula (I) of Inukai, the fluoroalkyl group of the ester moiety has 8 to 12 carbon atoms. In contrast, according to the present claims, as shown in the formulae (2) and (2a), the structural units (c1) and (c2) have fluoroalkyl groups R² and R³ of 4 to 6 carbon atoms.

The polymer according to the present claims is a terpolymer (that is, a three-component polymer) of the structural units (a) (which corresponds to (III) of Inukai), (b) (which corresponds to MMA) and (c1) or (c2) (which corresponds to (II) of Inukai). The polymer according to the present claims may also contain an amount of fluoroalkyl methacrylate. However, Inukai essentially requires the fluoroalkyl methacrylate (I) in an amount of 50 % by weight or more.

In more detail, Inukai specifies a firm *lower* limit of about 50 % by weight of the long-chain fluoroalkyl methacrylate represented by Formula (I). In order to arrive at the fluorine-containing optical material of the present invention, the copolymer of Inukai would have to be modified to reduce the content of the long-chain fluoroalkyl methacrylate represented by Formula (I) from a lower limit of about 50 weight %. If Inukai contemplated a copolymer having a lower content of the long-chain fluoroalkyl methacrylate represented by Formula (I), Inukai *would not have set a lower limit* of about 50 % by weight. That is, there is no apparent reason which would lead one skilled in the art to considerably reduce the content of the long-chain fluoroalkyl methacrylate represented by Formula (I) to arrive at the claimed invention.

Accordingly, (1) Inukai requires *at least* 50 % by weight of Formula (I), which is outside the scope of the present claims; and (2) there is nothing within the disclosure of Inukai that suggests employing less than 50 % by weight of Formula (I).

The Examiner, however, takes the position that it would have been "obvious to one of ordinary skill in the art to lower the amount of fluoroalkyl methacrylate having a long molecular chain such as the fluoroalkyl methacrylate compound (I) of Inukai et al. (col. 2, line 33-41) in favor of the higher amount of fluoroalkyl methacrylate compound (III) of Inukai et al. (col. 2,

line 57-63) to obtain the mole percent composition of the fluoroalkyl methacrylate composition as claimed.” The Examiner is of the opinion that a person having skill in the art would have been “motivated by the expectation of success of lowering the turbidity of the copolymer, which is presumably caused by the fluoroalkyl having a long molecular chain.”

However, Inukai solves the problem of turbidity by using a solvent in which the resulting copolymer can be dissolved (that is, the solvent disclosed at column 3, lines 21-32), and sets a firm *lower* limit of about 50 % by weight of the fluoroalkyl methacrylate represented by Formula (I). Thus, contrary to the Examiner's suggestion, Inukai does not lead one skilled in the art to decrease the content of the fluoroalkyl methacrylate represented by Formula (I) below about 50 % by weight, but rather directs those skilled in the art to use a specific solvent in a specific amount in order to serve as a turbidity inhibitor.

In view of the above, Applicants respectfully request reconsideration and withdrawal of the §103 rejection of Claims 32-53 based on Inukai.

Information Disclosure Statement

Applicants respectfully request the Examiner to forward initialed Form PTO/SB/08 A & B (modified) for the Information Disclosure Statement filed January 5, 2007.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

AMENDMENT UNDER 37 C.F.R. § 1.114(c)
U.S. Application No.: 10/538,266

Attorney Docket No.: Q87376

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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